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OLDEST BEE PAPER  
IN AMERICA

THE AMERICAN  
**BEE JOURNAL**

ESTABLISHED  
IN 1861

DEVOTED TO SCIENTIFIC BEE-CULTURE AND HONEY PRODUCTION.

Vol. XIX.

Chicago, Ill., December 19, 1883.

No. 51.

**THE WEEKLY EDITION**



PUBLISHED BY

**THOMAS C. NEWMAN,**

EDITOR AND PROPRIETOR.

925 WEST MADISON ST., CHICAGO, ILL.

Weekly, \$2 a year; Monthly, \$1.

**PREMIUM.**—Any one sending one new subscription for the Weekly, or two for the Monthly, for one year, besides their own subscription for a year for the Weekly, will be entitled to a copy of "Bees and Honey," bound in cloth.

**¶** The receipt for money sent us will be given on the address label on every paper. If not given in two weeks after sending the money, write us a Postal card, for something must be wrong about it.

**¶** Any person sending a club of six, is entitled to an extra copy (like the club), sent to any address desired. Sample copies furnished *free*.

**¶** Papers are stopped at the expiration of the time paid for, unless requested to be continued.

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George Neighbour & Sons, London, England, are our authorized agents for Europe.

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**ADVERTISING RATES.**

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**THOMAS G. NEWMAN,**  
925 West Madison Street, Chicago, Ill.

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**¶** Speak a word for the BEE JOURNAL to neighbors who keep bees, and send on *at least one new subscription* with your own? Our premium, "Bees and Honey," in cloth, for one new subscriber to the Weekly, or two for the Monthly, besides your own subscription to either edition, will pay you for your trouble, besides having the satisfaction of knowing that you have aided the BEE JOURNAL to a new subscriber, and progressive apiculture to another devotee.

**¶** The Eastern New York Bee-Keepers Union, will hold an annual Convention in the Agricultural Hall at Albany, N. Y., on Tuesday, Wednesday and Thursday, Jan. 3, 8, 9 and 10, 1884. We invite exhibition of hives, extractors, implements for the apiary, and all aparian supplies. Time will be given for exhibition and examination, and testimonials awarded. There will be speeches and essays on important topics from prominent apiarists, and questions on interesting subjects will be discussed. A general invitation is extended to all interested in apiculture. S. VROOMAN, Pres.

**CLUBBING LIST FOR 1884.**

We will supply the American Bee Journal one year, and any of the following Books, at the prices quoted in the last column of figures. The first column gives the regular price of both. All postage prepaid.	<i>Price of both. Club</i>
The Weekly Bee Journal.....	\$2 00..
and Cook's Manual, 7th edition (in cloth) 3 25..	2 75
Cook's Manual, (in paper covers)....	3 00.. 2 50
Bees and Honey (T.G. Newman) cloth 2 75..	2 50
Bees and Honey (paper covers)....	2 50.. 2 25
Binder for Weekly Bee Journal.....	2 75.. 2 50
Apiary Register for 100 colonies .....	3 50.. 3 00
Apiary Register for 200 colonies .....	4 00.. 3 50
Dzierzon's New Bee Book (cloth)....	4 00.. 3 00
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Quibby's New Bee-Keeping.....	3 50.. 3 25
Langstroth's Standard Work.....	4 00.. 3 75
Root's A B C of Bee Culture (cloth) 3 25..	3 00
Alley's Queen Rearing .....	3 00.. 2 75
Scribner's Lumber and Log Book....	3 25.. 2 25
Fisher's Grain Tables.....	3 40.. 2 25
Moore's Universal Assistant.....	4 00.. 4 25
Honey as Food & Medicine, 100 Copies 6 00..	5 50
Blessed Bees .....	2 75.. 2 50
King's Text Book .....	3 00.. 2 75

The Weekly Bee Journal one year and Gleanings in Bee-Culture (A.L. Root) 3 00.. 2 75  
Bee-Keepers' Magazine (A.J. King) 3 00.. 2 75  
Bee-Keepers' Guide (A.G. Hill)..... 3 50.. 2 35  
Kansas Bee-keeper..... 3 00.. 2 75  
The Apiculturist, (Sylvanus M. Locke) .. 3 00.. 2 75  
New Eng. Apician, (W.W. Merrill) .. 2 75.. 2 50  
British Bee Journal..... 3 75.. 3 00  
The 8 above-named papers..... 9 00.. 7 25

The Monthly Bee Journal and any of the above, \$1 less than the figures in the last column.

**¶** It would be a great convenience to us, if those sending us Postal Notes or Money Orders, would get the issuing Post-master to make them payable at the "Madison Street Station, Chicago, Ill., instead of simply "Chicago." If they are drawn on Chicago, they go to the general office, and we have to make a trip of six miles to get them cashed; but if they are drawn on the Station as above, it is only a few steps from our office. When sending us money, if you will please remember this, you will much oblige the publisher.

**Advertisements intended for the BEE JOURNAL must reach this office by Saturday of the previous week.**

## Advertisements.

THE AMERICAN BEE JOURNAL is the oldest Bee paper in America, and has a large circulation in every State, Territory and Province, among farmers, mechanics, professional and business men, and is, therefore, the best advertising medium.

## DADANT'S HONEY CROP!

Our crop being very large, we offer THIRTY THOUSAND POUNDS of extracted Honey

### FOR SALE

at REASONABLE PRICES. We have both clover and fall honey. Samples sent on receipt of stamps to pay postage. The honey can be delivered in any shape to suit purchasers.

Send 15c. for our 24-page Pamphlet on Harvesting, Handling and Marketing extracted honey.

CHAS. DADANT & SON,  
5ABLY HAMILTON, Hancock Co., ILL.

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In answer to frequent inquiries for Extractors carrying 3 and 4 Langstroth frames, I have concluded to adopt these two new sizes. The 3 frame basket is in a can of the same size and style as the 2 frame. The 4 frame basket is in the larger can, with the cone or metal standard for the basket to revolve upon, leaving room underneath the basket for 75 or 80 lbs. of honey. It will be complete, with covers, and in every way identical, except in size, with the \$1.00 Extractor, 13x20, which is intended for any size of frame.

Excepting with the \$8.00 Extractors, all the different styles have strainers over the canal leading to the honey gate, and movable sides in the Comb Baskets. The \$8.00 and \$10.00 Extractors have no covers.

For 2 American frames, 13x13 inches.....	\$8.00
For 1 Langstroth " 10x18 "	\$8.00
For 3 " " 10x18 "	10.00
For 4 " " 10x18 "	14.00
For 2 frames of any size, 13x20 "	12.00
For 3 " " 13x20 "	12.00
For 4 " " 13x20 "	16.00

ALFRED H. NEWMAN,  
923 West Madison Street, Chicago, Ill.

## DADANT'S FOUNDATION

From JAMES HEDDON, July 27th, 1883.—Your Foundation is certainly the nicest and best handled of any I have seen on the market. It is the only foundation true to sample I have ever received.

From JAMES HEDDON, Aug. 10th, 1883.—I will contract for 2,000 pounds of foundation for next season on the terms of your letter.

From A. H. NEWMAN, Aug. 24th, 1883.—Book my order for 5,000 pounds for spring delivery.

From C. F. MUTH, Sept. 6th, 1883.—All of your shipments of foundation during the season were sold on the day of their arrival.

Dealers, send in your orders for next spring while wax is cheaper, and save trouble and money.

CHAS. DADANT & SON,  
5ABLY HAMILTON, Hancock Co., ILL.

## ELECTROTYPE

Engravings used in the Bee Journal for sale at 75 cents per square inch—no single cut sold for less than 50c. THOMAS G. NEWMAN,

925 West Madison Street Chicago, Ill.

## BOOKS!

Sent by mail, on receipt of price, by

THOMAS G. NEWMAN,

925 West Madison Street, CHICAGO, ILL.

On dozen or half-dozen lots, we allow a discount of 25 per cent. and pay postage. Special rates, on larger quantities, given upon application.

**Dzierzon's Rational Bee-Keeping.**—A Translation of the Masterpiece of that most celebrated German authority, by H. Dieck and S. Stutter, and edited, with notes, by Charles N. Abbott, *Ex-editor of the "British Bee Journal."* Dr. Dzierzon is one of the greatest living authorities on Bee Culture. To him and the Baron of Berlepsch we are indebted for much that is known of scientific bee culture. Concerning this book, Prof. Cook says: "As the work of one of the great masters, the Langstroth of Germany, it can but find a warm welcome on this side of the Atlantic." Mr. A. J. Root says of it: "Old father Dzierzon...has probably made greater strides in scientific apiculture than any one man...For real scientific value, it would well repay any bee-keeper whose attention is at all inclined to scientific research, to purchase a copy. Cloth, \$2.

**Queen-Rearing, by Henry Alley.**—A full and detailed account of TWENTY-THREE years experience in rearing queen bees. The cheapest, easiest and best way to raise queens. Never before published. Price, \$1.00.

**Bee-keeper's Guide; or, Cook's Manual of the Apiary.**—This Manual is elegantly illustrated and fully "up with the times" on every subject of bee-culture. It is not only instructive, but intensely interesting and thoroughly practical. The book is a masterly production, and one that no bee-keeper, however limited his means, can afford to do without. Cloth, \$1.25; paper cover, \$1.

**Bees and Honey, or Management of an Apiary for Pleasure and Profit.**—By Thomas G. Newman.—Fourth Edition. "Fully up with the times," including all the various improvements and inventions. Chief among the new chapters are: "Bee Pasturage a Necessity," "Management of Bees and Honey at Fairs," "Marketing Honey," etc. It contains 190 pages, and is profusely illustrated. Price, bound in cloth, 75c.; in paper covers, 50c., postpaid.

**Honey, as Food and Medicine.**—By Thomas G. Newman.—This pamphlet discourses upon the Ancient History of Bees and Honey, the nature, quality, sources, and preparation of Honey for the Market; Honey as food, giving recipes for making Honey Cakes, Cookies, Puddings, Foam, Wines, etc.; and Honey as Medicine, with many useful Recipes. It is intended for consumers, and should be scattered by thousands, creating a demand for honey everywhere. Published in English and German. Price for either edition, 5c.; per dozen, 50c.

**Preparation of Honey for the Market;** including the production and care of both comb and extracted honey, and instructions on the exhibition of bees and honey at Fairs, etc. by T. G. Newman. This is a chapter from "Bees and Honey." Price 10c.

**Swarming, Dividing and Feeding Bees.**—Hints to Beginners, by Thomas G. Newman. This is a chapter from "Bees and Honey." Price, 5c.

**Bee Pasturage a Necessity.**—By Thomas G. Newman.—Giving advanced views on this important subject, with suggestions what to plant, and when and how: 26 engravings. This is a chapter from "Bees and Honey." Price, 10c.

**Bees in Winter,** with instructions about Chaff-Packing, Cellars and Bee Houses, by Thomas G. Newman. This is a chapter from "Bees and Honey." Price, 5c.

**Food Adulteration;** What we eat and should not eat. This book should be in every family, and ought to create a sentiment against adulteration of food products, and demand a law to protect the consumer against the numerous health-destroying adulterations offered as food. 200 pages 50c.

**Scribner's Lumber and Log Book.**—Most complete book of its kind published. Gives measures of all kinds of lumber, logs, and planks by Doyle's Rule, cubical contents of square and round timber, staves and heading bolt tables, wages, rent, board capacity of cisterns, cordwood tables, interests, etc. Standard book throughout United States & Canada. Price 35c. postpaid.

**Fisher's Grain Tables for Farmers, etc.**—192 pages, pocket form; full of useful tables for casting up grain, produce, hay, cost of pork, interest; wages tables, wood measurer, ready reckoner, plowing tables and more miscellaneous matter and useful tables for farmers and others than any similar book ever published. 40 cents.

**Moore's Universal Assistant, and Complete Mechanic,** containing over 1,000,000 Industrial Facts, Calculations, Processes, Trade Secrets, Legal Items, Business Forms, etc., of vast utility to every Mechanic, Farmer and Business Man. Given 200,000 items for Gas, Steam, Civil and Mining Engineers, Machinists, Millers, Blacksmiths, Founders, Mowers, Metallurgists, Assayers, Plumbers, Gun and Steam Fitters, Brassers, Gilders, Metal and Wood Workers of every kind.

The work contains 1,016 pages in a veritable Treasury of Useful Knowledge, and worth its weight in gold to any Mechanic, Business Man, or Farmer. Price, postage paid, \$2.50.

**Kendall's Horse Book.**—No book could be more useful to horse owners. It has 35 engravings illustrating positions of sick horses, and treats all diseases in a plain and comprehensive manner. It has recipes, a table of doses, and much valuable horse information. Price 25c. for either the English or German editions.

**Quinby's New Bee-Keeping.**—By L. C. Root.—The author treats the subject of bee-keeping so that it cannot fail to interest all. Its style is plain and forcible, making all its readers realize that its author is master of the subject. \$1.50.

**The Hive I Use.**—Being a description of the hive used by G. M. Doolittle. Price, 3c.

**Novice's ABC of Bee-Culture.**—By A. I. Root. This embraces "everything pertaining to the care of the honey-bee," and is valuable to beginners and those more advanced. Cloth, \$1.25.

**King's Bee-Keepers' Text-Book.**—By A. J. King.—This edition is revised and brought down to the present time. Cloth, \$1.00.

**Langstroth on the Hive and Honey Bee.**—This is a standard scientific work. Price, \$2.

**Blessed Bees,** by John Allen.—A romance of bee-keeping, full of practical information and contagious enthusiasm. Cloth, 75c.

**Foul Brood;** its origin, development and cure. By Albert R. Kohnke. Price, 25c.

**Extracted Honey; Harvesting, Handling and Marketing.**—A 24-page pamphlet, by Ch. & C. P. Dadant, giving in detail the methods and management adopted in their apiary. 15c.

**Practical Hints to Bee-keepers,** by Chas. F. Muth; 32 pages. It gives Mr. Muth's views on the management of bees. Price, 10c.

**Dzierzon Theory**—presents the fundamental principles of bee-culture, and furnishes the facts and arguments to demonstrate them. 15c.

**Apinary Register,** for SYSTEMATIC WORK IN THE APIARY. The larger ones can be used for a few colonies, give room for an increase of numbers, and still keep the record all together in one book. Prices: For 50 colonies, \$1.00; for 100 colonies, \$1.50; for 200 colonies, \$2.00.

## Deutsche Buecher, ueber Bienenzucht.

**Bienenkultur, oder erfolgreiche Behandlung der Bienen,** von Thos. G. Newman. Dieses Pamphlet enthält Belehrungen über folgende Gegenstände—Der Urtypus des Bienenstandes—Honigpflanzen—Erziehung der Königin—Füttern—Schwärmen—Ableger—Versehen—I talien ist ein Züchter von Königinnen—Ausziehen—Bienen behandeln und beruhigen; weiter enthält es ein Kapitel, worin die neueste Methode für die Herstellung des Honigs für den Handel beschrieben ist. Preis 40 Cent.

**Honig als Nahrung und Medizin**—von Thomas G. Newman. Dieses enthält eine klare Darstellung über Bienen und Honig des Alterthums; die Beschaffenheit, Qualität, Quellen und Zubereitung des Honigs für den Handel; Honig als Nahrungsmittel, angebend wie man Honigkuchen, Formküchlein, puddings, Schaumkonfekt, Weine, u. s. w. zubereiten kann; ferner Honig als Medizin mit vielen Rezepten. Es ist für den Consumenten bestimmt, und sollte vieltausendfältig über das ganze Land verbreitet werden. Preis 6 Cents.

**Das Pferd und seine Krankheiten**—Von B. J. Kendall, M. D., enthaltend ein alphabetisch geordnetes Verzeichniß der verschiedenen Pferdekrankheiten, sammt den Ursachen, Symptomen und der richtigen Behandlung derselben; ferner, eine Sammlung wertvoller Rezepte. Preis 25 Cents.

THOMAS G. NEWMAN,  
925 West Madison St., CHICAGO, ILL.

# Weekly Bee Journal,

DEVOTED TO THE INTERESTS OF THE PRODUCERS OF HONEY.

VOL. XIX.

CHICAGO, ILL., DECEMBER 19, 1883.

No. 51.



Published every Wednesday, by

THOMAS G. NEWMAN,  
EDITOR AND PROPRIETOR.

## Bees Flying—Pleasant Weather.

The weather for December, so far, in the neighborhood of Chicago, has been exceedingly fine, making, in reality, "December as pleasant as May."

It seems that this pleasant weather has extended to the far East as well as the West. Mr. C. W. Young, of Stratford, Ontario, under date of Dec. 13, wrote as follows:

This is a fine winter for bees; so far, there has been no zero freeze, and bees are flying to-day, under a bright sun. This time, last year, the ground was buried under 4 feet of snow.

Mrs. L. Harrison, of Peoria, Ill., wrote as follows to the *Prairie Farmer*:

The present season, thus far, has been very favorable for wintering bees on their summer stands. On the first of December the bees were sporting like summer, and house-cleaning with as much energy as a good house-wife in spring. The spring following a mild winter the hives are clean, free from dead bees, capping, etc., but after a hard, cold winter, it is different. The debris becomes damp, and the bees are unable to remove it.

We should not grow careless and neglect our bees during mild weather, but see they are snug and dry. A leaky roof has been the destruction of more colonies than one. Mr. Hill, of Mt. Healthy, Ohio, has all the hives in his apiary covered with sheet iron, which has a gutter turned up in front, to carry off water. Wood roofs should be kept well painted, and all cracks filled up with it. During mild weather bees are on the wing exercising, and consume more honey than when lying still, and care should be given colonies lest they die of starvation.

Mr. A. W. Fisk, of Bushnell, Ill., writes on Dec. 14, 1883, as follows:

The weather here is delightful; some days this month we can truly

say, "December is as pleasant as May." We have had a poor honey season in this locality. In the spring it was very flattering, but we had plenty of rain. White clover and other plants blossomed profusely. Some bee men thought that this land would flow with milk and honey; so much so that some sold nice comb-honey at 10 to 12½ cents per pound. But early in July the prospect changed—it became so dry and cold that there was but little honey gathered after that time.

However, I believe bees have plenty for winter stores if the winter is mild as it now promises to be. My bees are prepared and well packed in straw chaff and planer shavings on their summer stands, and I expect (as they always have in the last 4 years) all to report in the spring "at muster roll," ready for "business." My 30 colonies afforded me a light honey crop, all of which I sold at 15 and 18 cts. for comb, and 10 and 12½ for extracted.

■ Seven thousand pounds of honey from 80 colonies of bees is what Mr. A. Stevens, of Stockbridge, Wis., harvested this season. Four thousand pounds of the amount was extracted honey. He has placed 122 colonies in winter colonies. So we learn from an exchange.

■ We have received a copy of the beautiful lithographic portrait of Pansy (Mrs. G. R. Alden), the well-known authoress, who edits the "Pansy," a popular historical weekly magazine for young people, published at 75 cents a year, by D. Lothrop & Co., Boston, Mass.

■ We are glad to learn that the Michigan State Convention, held at Flint, was a very pleasant and interesting meeting. The report of the first day's proceedings may be found in this paper, and the rest of the report may be expected in next week's BEE JOURNAL. The Secretary writes us that the meeting was a decided success, and from the report, we think it must have been quite an enthusiastic gathering. The list of members on page 659, show a large number of successful apiarists.

## One Number More.

ONIS NUMBER MORE will complete the volume of the Weekly BEE JOURNAL for 1883. We would respectfully request all our present subscribers to renew at once for 1884. By sending on the subscriptions at once, it will save us much extra labor in taking the names from our mail list, which is kept in type, and then replacing them again in a week or two. It will also prevent the loss of any copies of the JOURNAL, and be an advantage all around. If any find it inconvenient to send the \$2.00 now, send us a postal card requesting us to continue sending it along, and then the remittance may follow in a week or two afterwards. We do not believe any bee-keeper can afford to let the BEE JOURNAL cease to visit them weekly for the coming year, for we intend to make the next volume even more valuable and interesting than all that have preceded it, during the past 20 years of its existence. Will every reader please give this matter immediate attention, and oblige the publisher?

## Hint to Prof. Hasbrouck.

E. R. Shankland, of Dubuque, Iowa, thus writes concerning the report of the New Jersey and Eastern Convention, published on page 621:

I have read with interest and profit the valuable report of the secretary of the N. J. and Eastern Convention Query, who is Pres. Thompson? (Perhaps it is my old friend G. W. Thompson), and at what place in the state of Camden and Amboy was this interesting meeting held? Allow me to suggest to the worthy Secretary, in next report, to give the initials and post-office address of the officers of the Association, and the name of the place of meeting.

■ Vick's Monthly comes to us in holiday attire, and in a very neatly printed cover. The publishers wish their many patrons "A Merry Christmas."

## Convention Notices.

The 15th annual convention of the Northeastern Bee-Keepers' Association will be held in the City Hall at Syracuse, N. Y., on the 22, 23 and 24 days of January 1884.

This will be the largest and most interesting convention of bee-keepers ever held in America. Many of the most scientific apiarists in the country will take part in the discussions. The programme is completed, and comprises all the interesting topics of the day. The question box will be opened each day, and the questions answered. All are invited to send in questions.

Implements and other articles of interest for exhibition will be received and properly arranged. It will pay any bee-keeper to go a thousand miles to listen to the discussions. By hearing and seeing, you will obtain much more knowledge than by reading. Five hundred bee-keepers will be in attendance. Reduced rates of board at hotels have been secured. All are invited.

GEO. W. HOUSE, Sec.  
W. E. CLARK, Pres.

Notice is hereby given that the Nebraska State Bee-Keepers' Association will meet in annual session at Lincoln, Neb., Wednesday, Jan. 9, 1884, at 2 p. m., in the Y. M. C. A. rooms on Tenth street, between O. and P., just east of the Government Square.

We have the promise of some eminent apiarists from other States to be with us, and also expect to have one of the largest displays of aparian supplies ever gathered together in the State. Each person attending, is requested to bring something to exhibit or show, to the edification of bee-keepers and others. Past members are earnestly requested to renew their membership, and all others are cordially invited to come in with us.

The ladies having been well represented at our past meetings, we certainly expect a larger attendance this session than ever before. All those not attending will surely miss a good time, for we expect the largest gathering, and also the most enthusiastic meeting of practical bee-keepers ever held west of the Mississippi river.

We have succeeded in making very satisfactory hotel arrangements. Two dollar hotels have offered \$1 rates. All bee-keepers desiring to attend can obtain certificates entitling them to excursion rates over the B. & M. and U. P. railroads by applying at any time previous to Jan. 6, to M. L. Trester, Secretary of Nebraska Bee-Keepers' Association, Greenwood. Please apply immediately.

M. L. TRESTER, Sec.  
T. L. VAN DORN, Pres.

The annual meeting of the Indiana bee-keepers will be held at Indianapolis, Jan. 15 and 16, in the Agricultural rooms corner of Tennessee and market streets. A cordial invitation is extended to all.

F. L. DOUGHERTY, Sec.

The Ohio bee-keepers will hold their annual convention in Columbus, O., Jan. 14, 15 and 16, 1884. All interested in bee-culture are invited. The following subjects will be discussed: "How to winter bees successfully." "Are the new races of bees a success?" "What can we do to prevent adulteration of honey?" "How to create a home market for honey?" "How many colonies can be kept in one locality?" "Can we do without separators?" "Which are best, deep or shallow frames?" "What shall we do with second swarms?" "How many brood frames are necessary in a hive?" "Which is the most salable section, one-half, one or two pounds?" "Is it advisable for all bee-keepers to adopt a standard size of frame?" "What is the most desirable width of sections?"

The above questions will be discussed by eminent men, such as Rev. L. L. Langstroth, Dr. Besse, S. D. Riegel and others, and in addition to the above, Prof. Lizenby, of the Ohio University, will deliver a lecture on "Honey-producing plants;" also Mrs. Jennie Culp will read an essay.

C. M. KINGSBURY, Sec.

The Northwestern Illinois and Southwestern Wisconsin Bee-Keepers' Association, will hold its annual meeting in Temperance Hall, Freeport, Ill., on Jan. 15 and 16, 1884.

J. STEWART, Sec.  
Rock City, Ill., Nov. 30, 1883.

Please give notice, through the BEE JOURNAL, that C. F. Muth, of Cincinnati, and A. I. Root, of Medina, will be at the Ohio Bee-Keepers' Convention, which will be held in Columbus, on Jan. 14, 15 and 16, and join in the discussions of various subjects interesting to bee-keepers.

C. M. KINGSBURY, Sec.

The 5th annual Convention of the Northeastern Ohio and Northwestern Pennsylvania Bee-Keepers' Association, will be held at Jefferson, Ohio, Jan. 16 and 17, 1884. All are cordially invited.

C. H. COON, Sec.  
New Lyme, O., Nov. 26, 1883.

Owing to the death of our Secretary, Mr. T. Brookins, please announce in the BEE JOURNAL that the annual meeting of the Champlain Valley Bee-Keepers' Association, will meet in the parlors of the Addison House, Middleburg, Vt., the second Thursday in January, 1884.

J. E. CRANE, Pres.

For \$2.75 we will supply the Weekly BEE JOURNAL one year, and Dzierzon's Rational Bee-Keeping, in paper covers; or in cloth for \$3.00. This is a rare chance to get the latest book of that celebrated German bee-master for a trifle. The price of the book alone is \$2.00.

## Honey and Beeswax Market.

OFFICE OF AMERICAN BEE JOURNAL,  
Monday, 10 a. m., Dec. 17, 1883.

The following are the latest quotations for honey and beeswax received up to this hour:

## CINCINNATI.

HONEY—The market is slow; arrivals exceed the demand which however, has improved some. There is a better demand for comb honey, and sections are short, which no doubt is temporary, as usual. Last year was about this time comb honey was at its highest, when our sanguine friends very naturally held on, expecting more. However, large supplies commenced to arrive, and prices kept going down steadily. Bee-keepers in general bent their energies on the production of extracted honey last season, more than ever before. We had a large crop, and extracted has been dull so far, not only because of the large supply, but because manufacturers complain of dullness in their business. Consequently, we have reason to believe that the present slow market is temporary.

The present state of the honey market gives our bee-keeping friends another chance for a disappointment, to wit: That of over-production of comb honey another season. This is merely an idea of my own, and our friends may take it for what it is worth.

Extracted honey brings 7@9c. on arrival. Best comb honey, 16@17c. in small sections.

BEESWAX—Is of ready sale at 28@30 on arrival.

C. RAS. F. MUTH.

## NEW YORK.

HONEY—White clover and basswood in 1 and 2 lb. sections, 17@21c. Dark and second quality, 14@15c.; extracted white clover in kegs and barrels, 9@10c.; dark, sc.

BEESWAX—Prime yellow, 27@29c.

H. K. & F. B. THURBER & CO.

## CHICAGO.

HONEY—The market remains without change from that of last week. Dealers and retailers buy only enough to supply the demand for present use. It is impossible to place lots or entire shipments, owing to the reluctance of dealers to buy in advance of immediate wants. Prices obtained for white comb in 1 lb. sections, 18@20c.; 1½ and 2 lb., 15@18c., according to beauty of same. Extracted honey, 8@10c. per lb., according to color, body and flavor.

BEESWAX—Yellow, 33c.; medium, 28@30c.  
R. A. BURNETT, 161 South Water St.

## KANSAS CITY, MO.

HONEY—Market is active and receipts liberal for comb honey, prices ruling from 18c. for choice 1 lb. sections, and sales of a few small lots of choice 1 lb. sections at 19c. Extracted in fair demand at 8@10c., according to quality.

JEROME TWICHELL, 514 Walnut Street.

P. S.—Mr. Twichell is still improving, but still uses his right arm.

F. T. R.

## SAN FRANCISCO.

HONEY—There is some local demand for extra comb and such could be placed at good figures, but there is an absence of inquiry for all other descriptions. Fair comb was offered at 10c. A sale of extracted of medium quality was made at 6c. White to extra white comb, 15@20c.; dark to good, 9@11c.; extracted, choice to extra white, 7@7½c.; dark and candied, 6@—

BEESWAX—Wholesale, 27@30c.

STEARNS & SMITH, 423 Front Street.

## ST. LOUIS.

HONEY—Comb met a fair local demand at 15c. to 18c. per lb. for choice strained and extracted dull at 6@6½c. in small cans and fancy pkgs. at 10c.

BEESWAX—Firm, at 29@30c.

W. T. ANDERSON & CO., 104 N. 3d Street.

## CLEVELAND.

HONEY—Honey continues in excellent demand, as reported last; every lot of choice white comb is taken up as fast as it comes at 18c. in quantity for 1 lb. sections, and an occasional sale at 19; in a very few instances only, 20c. has been reached. Broken lots and second quality is very slow sale. For extracted there is no demand.

BEESWAX—Is eagerly inquired for at 28@30c., but none to supply the demand.

A. C. KENDEL, 115 Ontario Street.

## BOSTON.

HONEY—Our market is very quiet on honey. We quote 16@18c. for best 2 lb. sections—18@20c. for best white 1 lb. and 10c. for extracted.

BEESWAX—We have none to quote.

BLAKE & RIPLEY, 57 Chatham Street.

To give away a copy of "Honey as Food and Medicine" to every one who buys a package of honey, will sell almost any quantity of it.

For the American Bee Journal.

**Theory and Practice.**

JAMES HEDDON.

The late article of G. M. Doolittle's, found on page 606, brings fresh to my mind some thoughts upon the above subject—thoughts which for some time I have desired to write upon.

The experience of the past proves conclusively that just the right admixture of brain and muscle, that is theory and practice, serve better the end in view than too much of either one with too little of the other. Either extreme may well be found fault with, and either is continually finding fault with the other. More particularly is it true that the grossly practical are constantly "poo-hooing" at theory.

We find that it is the most ignorant of our agriculturists who are opposed to agricultural colleges and farmers' institutes. As these institutions have advanced, step by step, they have not only had to work the blessings they have worked, but battle against this old foggyism continually, yet they are gaining ground and gaining friends, because they are right, and because there has been too much muscle in proportion to the amount of brain used in the past.

Theory must always precede practice, however little theory is used. The grand known truths relating to astronomy and geology would never have been known had their discovery not been preceded by an immense amount of theorizing. Men who cannot see where to direct muscular effort, cease using it, devoting all their energies to the brain, becoming the greatest theorists we have. It is my opinion that the great apicultural advances made by the blind Huber, were mainly the result of his misfortune.

When any problem baffles mankind, out of the few known facts theories are woven; these theories stand, upon which to try on future discoveries, and when some of these discoveries misfit, the theory is dropped. That one which none misfit, is soon raised to the sublime standard of science.

Since I have been teaching apiculture to student apprentices, both in a theoretical and practical way, I have been more than ever strongly impressed with the necessity that he who would succeed, should be given just the right amount of theory and practice; therefore, I have been led to claim that there is no place like the large practical working apiary in which to teach the science and art, and I furthermore insist that the teacher must have the ability to clearly and forcibly teach the theory of the business, which is partly professional.

I think if Mr. Doolittle would look at the matter carefully, he will agree with me in the correctness of doing much theorizing upon a subject that,

for so many years, has baffled all our practitioners. I think one of Mr. Doolittle's faults is, that he does not theorize enough. For this opinion, I will refer you to page 105, BEE JOURNAL for 1881. Here, I think, you will see that just for a lack of proper theorizing, he makes a sad mistake in drawing the proper deduction from his own experiments.

In the first paragraph, entitled, "Cause of Bee Cholera or Dysentery," he says: "For I believe confinement does cause the so-called dysentery, and hope to so clearly show it in this article that you will so acknowledge also." In the third paragraph, are the facts which I quote as follows: "Again, in the fall of 1878, our bees were prepared for winter in the best possible shape, and had nothing but white honey in their hives, said honey being collected the early part of July, for we had no fall honey. Sixty colonies were put in the cellar, and 90 left on the summer stands, two-thirds of which were packed with chaff and straw. Winter set in early, and the weather was so cold that no bees could fly with safety for nearly four and one-half months. At the end of four months some of our best colonies were dead, with the combs and hives soiled badly, while others, setting along side of them, were in as fine condition as could be, and remained thus, coming out strong in the spring ..

"We also placed 60 colonies from the same yard in the cellar on the first of November, and did not set them out until May 1, and 55 of the 60 came out in good condition, while we only saved 15 out of 90 out doors, 75 dying with the dysentery so-called."

It will here be seen that for want of correct theorizing, Mr. Doolittle drew wrong deductions. That his own experience was, that those that were the longest confined (6 months) came out in very much the best condition.

I do not say, and have not said that I knew the consumption of bee bread was the cause of dysentery. Have never claimed any positive demonstration. I have given more than 20 different facts that have come under my observation as "pointers" to me, pointing in that direction.

The "signs" I referred to, were cells of pollen apparently nearly consumed; others partially eaten out. The reader will clearly see that my theory can easily be tested by simply preparing numerous colonies in such manner that they can partake only of that most oxygenized food, sugar syrup, removing all other foods. This we have thrice partially done, but not as perfectly and extensively as this present season. Nothing can defeat us from getting what will be to us a perfectly satisfactory proof, except that antidote or cure for dysentery, continual flights, and while our bees are now (Dec. 7) upon the wing, for the first time in my life, I hope for a dysentery winter yet.

Mr. Doolittle says we "give no proof to support the assertion." We have told what we have seen; have also told the deductions we have drawn from it. Mr. Doolittle has

done the same thing. He has proven, or thinks he has, that under such conditions as his experiment was made, bees cannot be induced to eat crude bee-bread by the pressure of starvation, but he has not shown that consumption of pollen during winter confinement is not the cause of dysentery. If pollen, either crude or "partially digested," because taken into the bodies of the bees during confinement produces dysentery, pollen will always be called the cause, though back of that is some cause for eating it, and back of that cause another cause, and so on without end, as thinkers of to-day are aware, that a first cause or last effect are beyond human imagination. No matter if breeding, or anything else induces pollen eating in winter, if we keep said pollen out of the hives, no dysentery can result. I would have hardly thought that just at this time, when I am being so thoroughly scourged by so many "clear and able" opposers, Mr. Doolittle would have felt it necessary to have penned the last paragraph of his article.

I supposed that standing in the presence of the mysterious unknown, we all had a right, and an equal right, to "guess." If we have not, I wonder why Mr. Doolittle should guess that half-digested bee-bread "may be possibly" the cause of dysentery? If my theory of the cause of dysentery be the true one, practical and speedy prevention, with the great value of the same, will quickly follow and be realized. But on the other hand, if it prove false, and my ship goes down, I will not sink alone. I will have for company Messrs. Oatman, Mason, Hutchinson, Kohnke, and I think Prof. Cook (though I do not know that he has expressed himself decidedly upon the subject), and a host of others equally worthy.

Having worked earnestly and honestly for the general good, as well as my own, I have nothing to regret, or to cause remorse in the matter, though mistaken I may be, I will cheerfully go down with the rest—never to be found paddling off to shore in a life boat. All I have to say is this: If this hypothesis proves false, it will stand unparalleled as fitting the most known facts of any other false theory ever advanced.

Dowagiac, Mich., Dec. 5, 1883.

For the American Bee Journal.

**Grading, Crating & Shipping Honey.**

W. Z. HUTCHINSON.

Some recommend three grades for white comb honey, but is not this getting things down a little too fine, when, with proper management, there need be only one grade? If such a system of management is employed that, unless removed as soon as finished, the sections are soon travel-stained; and, in addition to this, the system is so complicated that, during the height of the honey harvest, it is impossible to remove the sections as fast as filled; if such a system as this is adopted, I do not wonder that those

who adopt it also adopt and need a complicated system of grading. With the case method, and the tiering up plan, the finished sections are always at the top where they are not "tramped" over, and the case can remain upon the hive until every section is finished and sealed over, and the combs will remain white and clean, and there need be only one grade of white honey. When a section is found in which part of the honey is dark, then begin a second grade, and all honey that is too dark for this second grade, might better, as a general thing, be taken in the extracted form.

Before crating, sections should be scraped clean of all propolis. As to the best size for crates, opinions differ; my preference is a small crate. The crate that I used last season pleased me very much, as in fact, it did every one who saw it. It will receive 12 one-pound sections built with separators, 14 built without separators, and 24 half-pound sections built without separators. It is 4 5/16 inches high, 8 9/16 inches wide, and one foot long, inside measurements. The side boards are of  $\frac{5}{8}$  inch lumber, the top and bottom of  $\frac{1}{4}$  inch lumber, and each end is composed of two strips of  $\frac{1}{2}$  inch lumber,  $1\frac{1}{4}$  inches wide, one of which is nailed on even with the top, and the other even with the bottom of the crate, while a 2-inch strip of glass is slid, in grooves, between these two last mentioned strips of wood. As the grooves for the glass are sawed upon the inner edges of the end strips, these strips project out beyond the glass sufficiently to form nice handles. These crates can be retailed, at a good profit, for 10 cents each.

Many bee-keepers and dealers, upon seeing the crate, have exclaimed: "That is just the neatest, trimmest, nicest little crate that I have ever seen." Crates should be neat, clean and trim, but not expensive, as it is too much trouble, and many times impossible to keep track of them and get them back again. One advantage of a small crate is that, after a customer has bought a few pounds of honey the dealer can say: "Look here, Mr. A., you are buying considerable honey, let me sell you a whole crate. There are only 14 pounds in a crate, and I will make a little reduction if you will take a whole crate; then you will have a nice little box in which to keep the honey. You will use it up long before the winter is gone." And so on, and so forth, as only a dealer knows how to talk, and the result, in many cases, is that Mr. A. walks off with a crate of honey under his arm. What would have been the result had the crate contained from 25 to 40 pounds? Some consumers go to a commission merchant and buy a crate of honey if they can find a small one, upon the same principle that one class of people will buy a half-pound section.

Small lots of honey should be sent by express, large lots by freight. Goods sent by express are of necessity handled rapidly, and when there is a large lot of honey to unload, it is jerked off in a hurry. When large

lots are sent by freight, the consignee is notified by the railroad company, and he unloads the honey himself, and does the work with care. Small crates should not be piled up in a square, upright pile in a car, but built up in the shape of a low pyramid. If access can be had to one end of the car, there is the place to put the honey, as it will be protected upon three sides from tumbling over, and upon the other it can be built up like a pair of stairs, which will pretty effectually prevent any case from receiving a tumble. If possible, the combs should stand parallel with the length of the car. If rightly handled, comb honey will stand more rough usage than many people imagine.

Rogersville, Mich., Nov. 29, 1883.

For the American Bee Journal.

### Production of Comb and Extracted Honey in One Apiary.

G. M. DOOLITTLE.

Is it well to produce both comb and extracted honey in one apiary, or shall we divide the number of colonies kept into two yards, working the one for comb honey and the other for extracted. This is a question which often enters the mind of those keeping bees, some thinking that both comb and extracted honey production should not be mixed together in one apiary.

As I see little if any reason why two yards are necessary for a mixed production of honey, I will say a few words telling why I would produce both in one apiary. Fourteen years ago, when I began to keep bees, I had much trouble in getting certain colonies to work in boxes, and often after a colony had nearly completed a given number of boxes, they would swarm, leaving the bees in the hive so weak as to numbers that said boxes would remain unfinished at the end of the season. I tried cutting the queen-cells and returning the swarm, but this did little good, for in a few days out they would come again, and thus keep up their swarming till the honey flow ceased, doing little or nothing in the boxes, as bees having the swarming fever will do little else save preparing to swarm.

As I had no extractor, the only way I could do away with this state of affairs was to clip off all queen-cells while the swarm was out, cage the queen between two combs and return the swarm, leaving the queen thus caged for 9 or 10 days. At the expiration of this time the colony was looked over, and all the queen-cells again cut off, when the queen was given her liberty.

As nearly one-half of the brood had hatched during this time, there was plenty of empty cells in which she could deposit eggs, and as the bees had no larvae to nurse, the disposition to swarm was broken up as a rule, and I would get the boxes completed; but it will be noticed that during these 9 or 10 days, I got little or no honey, as queenless bees, and those having the swarming fever, are practically

good for nothing as comb builders, and a colony treated as above was about as good as queenless. The result was that I lost 10 days of the best of the honey harvest, during which time a colony not having the swarming fever would make from 40 to 60 pounds of honey. This was a serious loss, but not as great as to hive the swarm in a separate hive, in which case I got nothing except the swarm.

After awhile I purchased an extractor, when I found I had this swarming mania, of colonies which should be in better business, practically under my control. When a swarm issued as above, I would extract all the honey from the brood combs while they were out, and clip off all the queen-cells, when they would go to work with a will, upon being returned, losing all desire to swarm. Here I had a plan that accomplished the desired result without the loss of ten days of my best harvest, besides I got extracted honey enough to pay me for my time, while in the other case I got nothing. Now and then, a colony would not be cured in this way (although 9 out of 10 would), in which case I would cage the queen as first given, and wait 3 or 4 days instead of 9 or 10, when I would extract the honey as above, letting the queen loose, and in this way I never fail of keeping a colony which has once commenced in boxes at work in the same.

In case a colony refuses to go into the boxes, all I have to do is to take off the surplus arrangement and substitute an upper story in the shape of a hive full of empty combs. By raising one or two frames of brood from below into this upper story, I was thus master of the situation, and colonies determined not to work in boxes were made to produce an equivalent yield of honey by the use of the extractor equal to those which entered the boxes the most readily.

The aim of every person keeping bees should be to make all colonies produce an equal value of something readily turned into cash, or of a cash value, and I do not know how this can be successfully done except as we can work our apiary for both comb and extracted honey. Again, we often have a larger number of bees than one man can successfully work for comb honey (which means swarms, taking off sections when filled and snow white, by going over the yard once a week, etc.), while by the using of part of that number for extracted honey, the whole can be handled by one man, thus saving the wages of an assistant, which would become a necessity if all were worked for comb honey, or the same number of bees were divided into two yards.

By setting a part, in the spring, a certain number for extracted and a certain number for comb honey, one man can care for all by tiering up those worked for extracted honey before his time is fully occupied with those to be worked for comb honey, after which little attention need be paid to them, except to add another story if they should become crowded for room. After the filled sections are all taken off at the close of the

season, then these colonies can be attended to by extracting what honey they have to spare, and fixing them for winter. Thus the apiarist can use all of his time to the best possible advantage, and save to himself and his family that which he would pay out to an assistant in case he had the same bees in two separate yards.

From the above, which are the very plans adopted and used at the present time by the writer, I conclude that all will agree that it is the most profitable for the apiarist to work for both comb and extracted honey in the same apiary rather than have two separate apiaries, one to be devoted to the production of either kind exclusively.

Borodino, N. Y.

For the American Bee Journal.

### Italian and German Bees.

G. W. DEMAREE.

An examination of the back numbers of the bee periodicals will show that the comparative good qualities of the Italian and German races have been discussed at intervals all along the line. Years ago Rev. L. L. Langstroth and other veteran apiarists summed up the good traits of the two races, as they seemed to them to compare one with the other.

No improvement, so far as I have been able to see, has been made on the comparative points by any of the lesser, certainly more modern, lights on bee science. In all these "summings up" of good and bad traits, so far as I have seen from the pens of writers of reputation, the Italian has always "come out ahead," and this, notwithstanding the exaggerated "good points" set down to the account of the blacks.

I have taken the pains to look the matter up a little, and to condense the good and bad traits as set down to the accounts of each of the two races by a host of writers, and I propose to review them a little, that the reader may see how they look after passing through the crucible of fair and impartial criticism. Let us now sum up the "traits" in a concise form. Of course by dividing and subdividing they may be strung out to an unlimited extent, but that is not my purpose. We set down to the account of the Italian the following superior traits:

1. More gentle to handle.
2. Adhere with more tenacity to, and spread more evenly over the combs when manipulating them.
3. Less inclined to breed late when stores are scarce.
4. Build their combs more compactly and squarely in the brood nest.
5. Are more quiet when the hive is opened, and more readily resume their proper place in the hive when it is to be closed up.
6. Bear up under adversity better.
7. Protect their combs better from the ravages of the bee-moth.
8. Gather stores at times when the blacks do not.
9. Gather more honey in the aggregate.

10. The queens are more easily found.

11. Less liable to rob or be robbed.

12. Adhere better to location when moved a short distance.

13. Less prone to worry the apiarist by buzzing about his ears.

14. They are constitutionally a stronger race of bees.

The count in favor of the Italians is 13. The following is claimed for the German or black bee :

1. Produce whiter, and, therefore, more attractive comb honey.

2. Are better comb builders.

3. Build less drone comb.

4. Enter the surplus cases more readily.

Thus we have four counts for the Germans. Thirteen against four in favor of the Italians. But let us inquire into the facts concerning the four important superior traits so persistently claimed by the disciples of a "new era" in bee breeding for the German race.

"They produce whiter comb honey." Well, suppose they do, is it not a matter of taste merely as to who will admire such honey most? It is true in a majority of cases that the peddling little black imps "pile on" an excess of wax in the process of capping, and thereby impart to their surplus combs a dead, chalky appearance decidedly inferior, in my judgment, to the delicate cream-tinted combs so deftly finished by the Italian workers.

During the past season there were between 20 and 30 colonies of German bees brought to my apiary to be put in working trim, and to be worked for the season. They received the same care as did my Italians, and when I came to make selections for combs in one-pound sections, to exhibit at the Southern Exposition, not a single selection from the black colonies was made, for the simple reason that their combs, when all points were considered, were inferior to those built by the Italians.

"They are better comb builders." How often I have seen something like this in print, the Lord only knows. I have had black or German bees under my observation for nearly 40 years, and if they excell in this respect, I have been too obtuse to discover it.

I made some experiments the past season to test the practical use of foundation in the brood department, and in these experiments I put a number of colonies on empty frames with mere guides, and a few of these colonies were of the German race, and they were so decidedly inferior to the yellow race, in respect to comb building, that no one could fail to see it at a glance.

"They build less drone comb." Who invented this vain conceit, I know not, and care less. It does not accord with my experience. The fact is, "condition" has everything to do with excessive drone comb building. A colony that has an old, or for any cause a weak queen, and such as have virgin queens, and those colonies that labor under the swarming "craze," will all build an excess of drone comb. These conditions are not peculiar to any race of bees on earth.

"They enter the surplus boxes more readily." Well, this beats all the assertions that have been made by the most visionary of all the sights seers. I was familiar with the ways of the German race 20 years before I ever saw an Italian bee, and there were always complaints against them, because of their tardiness in entering the surplus boxes. Since I have been handling the Italians, I have never seen a colony of them (and I have had every distinct type or strain of the race) that did not walk right into the boxes whenever there was anything to do. I would not decry the smart, figity little German, but as a race they are inferior in every respect to the yellow bees. And in my opinion, he who attempts to make the Italian race better by crossing them with the inferior German, will disappoint himself, if in good faith, and do a great deal of damage to the bee interest, by flooding the country with mongrel bees Christiansburg, Ky.

For the American Bee Journal.

### Dictionary of Technical Terms.

PROF. JOHN PHIN.

DEAR EDITOR:—I was very much interested in the glossary or dictionary which you gave us in the BEE JOURNAL. Accuracy of expression is a necessity if we would have accuracy of thought, and impressed with this well-known fact, I, at one time, prepared a glossary of the terms generally used in bee-keeping, and have it now before me. It was written in 1868, and extends to about 250 vocabularies, gleaned from writers from Swammerdam down. During that year I delivered a few lectures on bee-keeping to one of the classes at the Agricultural College of Pennsylvania, where I occupied the chair of agriculture, and the glossary was prepared in connection with these lectures. I may add that the lectures were practically illustrated by means of a small colony which I procured for the purpose.

While most of the errors which you note in your preliminary remarks are not peculiar to bee-keepers, it is a fact that there is a good deal of confusion amongst even our best writers in regard to terms. Thus, for example, the words swarm, colony, stock have each distinct meanings, or ought to have, and yet they are used interchangeably. So, too, some of our words do not seem to be fully understood, and in bee-keeping are used in a sense which they will not bear, and for which there is no necessity. Take the words fertile and fertilized for example. The word fertile simply means fruitful, and has no relation to impregnation. A fertile queen may never have been impregnated; if she lays freely eggs producing drones, she is fertile. The proper word is fecundate, and then we would be able to express two conditions: We might have fertile and unfertile fecundated queens.

There is another expression to which strong exceptions might be

taken, drone-eggs, worker-eggs. Do drones ever lay eggs? Workers do, and their eggs may properly be called worker-eggs, but eggs from which workers are hatched are not laid by workers, but are workers in the egg condition, why not then call them egg-workers? And in a similar way the eggs which produce drones, egg-drones? This expresses the facts in the case simply and accurately. By the way, did you ever hear of rooster-eggs? I have heard of hen-eggs, and they were eggs laid by a hen.

Another word which deserves attention is the word hatch. People speak of hatching brood, and in your article you define it as "brood just emerging from the cells." Now, it ought to be a rule that no technical term ought to have more than one meaning if possible, as like the workers at Babel, when we ask for mortar we may get bricks. Hatch has only one meaning in natural history, and signifies the breaking of the young from the egg, whether that egg be laid by a bird, a reptile, or an insect. Hatching brood, therefore, means young larvae just breaking the egg-shell. Brood which is leaving the cell should be called simply emerging brood.

I found quite a number of cases in which the terms in common use were indefinite—meaning one thing in the mouth of one person, and quite a different thing when used by another, and it is a great pity that an earnest effort to reform this confusion has not been made.

As I look over this old vocabulary, it brings up strange memories. It has had many a narrow escape from destruction, and is now quite behind the times, but it was brought forcibly to my recollection by your article, and on digging it out and looking it over, the above thoughts came to the surface.

CedarBrae, Paterson, N.J., Dec. 6, 1883

For the American Bee Journal.

#### Michigan State Convention.

W. Z. HUTCHINSON.

The Michigan State Bee-Keepers' Association held its 18th annual session Dec. 5 and 6, at Flint. The meeting was called to order at 10 a.m. President A. J. Cook in the Chair. Secretary Cutting read the minutes of the last annual meeting, which were approved.

After the Secretary had finished his report, President Cook remarked that he thought it would be an excellent plan to devote the remainder of the forenoon session to an "experience meeting"—to the telling of anything new that had been discovered. A few had been fortunate in receiving good crops, but the majority reported a poor season; the poorest they had known in years.

W. Z. Hutchinson being called upon, he read his report from *Gleanings*. He, too, had had a poor season, but as he had mentioned incidentally, that he had practiced "feeding back," it brought down upon him a shower

of questions. In feeding back 1,000 pounds of extracted honey, he had received 800 pounds of comb honey. Had tiered up the cases of sections until they were three or four cases high. Had fed the honey as fast as they would take it. Looked the sections over about once a week, and removed the full ones. Some colonies did much better work than others. After the first trial, selected the best. No honey was coming in at the time of the feeding; did not weigh the hives; weighed only the sections and the amount fed. He had a friend who had fed back upon exactly the same plan, but his friend had not found it profitable. He thought that to know just how to feed back, at a profit, was not yet positively known.

D. A. Jones: The question of feeding back has but few advocates, for the reason that the majority have failed to make it profitable. To be successful in feeding back there must be no other place in the hive in which the bees can store honey except in the sections. Those hives must be selected that contain the most honey, or else those having but few combs. My plan of feeding is to elevate the hives in front, and pour the feed in upon the bottom board. The bees do not carry the honey out of the hive, they must store it somewhere. Bee-keepers failed to make it pay because the bees had an empty brood-chamber. Section boxes filled with foundation have been given a colony at 9 a.m., feeding commenced, and the next day, at evening, the bees had commenced capping some of the sections. Fifty-two pounds of honey were fed and 44 pounds of comb honey obtained. To get unfinished sections filled, and at the same time have the honey removed from some other unfinished sections, I put the sections that I wish emptied, over the hive, and the ones that I wish finished, in the main body of the hive, keeping the queen out of them by using perforated zinc.

W. Z. Hutchinson: Will not pouring in honey at entrances incite robbing?

D. A. Jones: I do not pour it in at the entrance. I pour it down inside the hive at the back.

W. Z. Hutchinson: You speak of using perforated zinc; I would like to know something about that. Do the bees work through it freely? Is there any objection to its use, except its cost? and where is the expense—is it in the material or in the preparations?

D. A. Jones: It is in no way detrimental; the bees work through it freely; I see no objection to its use, except its cost, and the cost is in the preparations. Tin would be no cheaper, for the reason that it comes in smaller sheets, and the waste would be greater.

C. F. Muth: Mr. Jones sent me some perforated zinc. I thought there was more than I should ever sell. It was all sold long ago, and I have since then sold large quantities, and my customers are well pleased with it. They tell me that the queens never pass through it.

Rev. L. L. Langstroth: I tried experiments, years ago, to determine if there was a space through which the

workers could freely pass, and the queen could not. I found that space to be 5 32, through which not even a virgin queen can pass; her shoulders, or rather the thorax, preventing her. The great difficulty in my experiments was, that the wood would shrink, and swell, and warp, and the bees gnaw off the corners, making the space wider. Had I had the modern perforated zinc, I should probably made of it a practical success.

W. Z. Hutchinson: I have used honey-boards, the past season, made of wood, the slats of which were 5 32 of an inch apart, and they answered every purpose, and are cheaper than zinc.

Rev. L. L. Langstroth: Do they not shrink and swell, or warp, and do not the bees gnaw them?

W. Z. Hutchinson: No, sir; they are held in place by strips of tin, and are painted.

S. T. Pettit: I can hardly think the wooden boards would be better than the zinc. It would take some time to make them, while the zinc is all ready, and is so lasting.

W. Z. Hutchinson: The wooden boards cost only one-third as much as the zinc, and I prefer them.

Adjourned to meet at 2 p. m.

#### AFTERNOON SESSION.

The meeting was called to order at 2 p. m. President Cook in the Chair. The first question on the programme was: "Comb or extracted honey?"

M. H. Hunt: I have raised both comb and extracted honey, and shall work more for extracted than for comb, in the future.

Dr. Kazartee: I have raised both comb and extracted honey. You must ask people to buy extracted honey; comb honey will sell itself.

Dr. L. C. Whiting: If we can get 3 cents more a pound for putting up extracted honey in small packages, it will be profitable to put it up in that shape. I think the profits on comb and extracted honey about equal.

Dr. A. B. Mason: It depends upon the market, which pays best.

The question was asked: "Is it good for the bees to extract?"

D. A. Jones: I know that it is good for us, and I believe it is good for the bees. It does not injure the brood. If some of the larvae is thrown partially out, when the comb is severed, it is thrown back in, and we can turn slower, so as not to throw them from the other side. If you will pick up a large larva that has been thrown out, and put it in a cell that is surrounded by smaller larvae, you will find that the large larva will be sealed over first, showing that it has not been injured.

Question—"Late-gathered honey for winter stores."

T. C. Pollock: When we extract from the brood combs, they are filled with late-gathered dark honey, for winter stores, and are often the cause of dysentery.

Dr. Mason: I have wintered my bees on late-gathered honey, and had no losses.

W. Z. Hutchinson: Late-gathered honey varies with the locality.

Dr. Mason : Yes ; but I have wintered my bees successfully in different localities.

W. Z. Hutchinson : The late-gathered honey of one locality may always be good for winter stores, that of another locality may vary with the season. You may have been fortunate in seasons and localities.

Prof. Cook : I think Mr. Hutchinson may be correct, but all late honey not gathered from flowers should not be condemned, as that from plant lice has proved excellent with us.

Here the discussions drifted back to the original question.

Dr. Ashley : How much more extracted than comb honey can be produced ?

S. T. Pettit : I can get 50 per cent. more extracted than comb honey. I think that extracted honey will eventually take the place of comb honey. With extracted honey no combs are to be built after we have a full supply; with comb honey there is a constant demand for comb foundation, and where is our wax to come from ? Let people know that nearly all pure honey will granulate, and that granulation is a test of purity.

F. Malcolm : I have extracted considerable honey. I extract from the brood combs as well as from other parts of the hives. I have extracted when the honey was "green," and stored it in a large vat to ripen it.

Mr. Sorter : Beginners often extract too much at the close of the season. Pollen often adds more to the weight of hives than they imagine.

"When shall we increase?" was the next topic.

Mr. Sorter : Increase early.

T. C. Pollock : That is my idea.

S. T. Pettit : I would allow increase when I could not help it—not before. I feed the bees no honey in the spring; it is not necessary. The best stimulant, in the spring, is salty water placed in a trough where the bees can have access to it. Do not get the water too salty, a teaspoonful in a pail of water is sufficient.

A. Keopper : I agree with Mr. Pettit. We practiced the same plan in Germany. If the water is too salty, bees will not take it.

Geo. E. Hilton : If increase is the object, increase early; if honey, increase slowly.

Adjourned to meet a 7:30 p. m.

#### EVENING SESSION.

The Convention was called to order at 7:30 p. m. President Cook in the Chair.

W. Z. Hutchinson read an essay upon "Separators." He said that if certain conditions were complied with they were not needed; these were : that the sections be about  $1\frac{1}{2}$  inches wide, and filled with Given foundation; the surplus receptacles well-filled with German bees, or Italians having a dash of German blood, and that the hive stand level.

James Ure : My sections are 2 inches wide. We do not get so much honey, but I cannot get along without them.

Mr. Sorter : I have used separators, but would not use them now, if they were given to me. My sections are  $1\frac{1}{4}$  inches wide.

T. M. Cobb : I have always used separators until this year, when I used sections  $1\frac{1}{4}$  inches wide without separators, and never had nicer honey. I could see no difference in the working of the different varieties of bees.

Mr. White : I had 1,000 pounds of honey without separators, and there were only 10 or 15 pounds that could not be crated. I have Italians and blacks, and the blacks made much the straightest combs.

Rev. L. L. Langstroth : In 1860, I made experiments in obtaining straight combs. I had black bees. I made wooden separators, and so nicely were they adjusted, that there was not room between them to build out and cap over drone comb, and I secured some of the straightest, whitest, nicest combs imaginable. I think they were finer, if possible, than those that we now have built upon foundation. After the combs were finished, the separators were removed. When the Italians were introduced, I gave them a trial, and they did little else between the separators, except to mope. If they did any work the combs were attached to the separators, were built in strips; in fact, they made the most horrible, bungling work imaginable, and I gave it up in disgust. Bees do not like separators.

C. F. Muth : Myself and neighbors have excellent honey, without separators. More honey can be secured without separators.

Dr. Whiting : I prefer separators. Honey brings a higher price. My sections are 1 11-16 inches wide. Honey built without separators, stands no show with that built with them.

W. Z. Hutchinson : Doctor, you did not have your honey at the State Fair.

Prof. Cook : It seems to me that the proof of the pudding is in the eating. The first prize honey at the Toronto Fair was certainly fine, but it was selected, while the honey of Mr. Hutchinson, that took the first prize at Detroit, was his entire crop, and I must say that I never saw a finer display, or finer honey; and it was built without separators.

Dr. Mason : The superintendent of the honey department at Detroit, Mr. W. J. Baxter, was astonished when I said that the Michigan display of honey excelled that at the Tri-State Fair at Toledo, and that we thought, down there, that we had "beaten the world."

Mr. Forncrook : I have a neighbor that raised 8,000 pounds of honey in two-inch sections without separators, but his bees were hybrids.

The question was asked : "Which is preferable for section boxes, drone or worker foundation?"

D. A. Jones : Worker foundation is stronger.

James Ure : Drone comb in sections is an inducement to the queen to enter.

C. F. Muth : Usually they will build out the worker first.

Rev. L. L. Langstroth : Query—Have we not carried this non-production of drones too far ? I think we can carry the exclusion of drones so far as to discourage the bees, or make them desperate in their attempt to rear them.

S. T. Pettit : I have given a colony so large a proportion of drone comb that workers have been reared in drone comb.

"Half-Pound Sections" were but slightly touched upon, and that rather unfavorably.

"Foul Brood" probably never received a more full discussion, and that, too, by the best authorities.

Dr. Mason : My apiary, the past season, has been reduced nearly one-half by foul brood. I have 40 colonies left, and consider them free from the disease. Have tried both the Muth and the Jones plan, and succeeded with both. I have destroyed nothing. I have extracted the honey, added salicylic acid, boiled it, skimmed it, and fed it back to the bees; have melted the combs, made them into foundation, and thoroughly scalded the hives and frames. If I had only a few colonies affected, I would burn them, but if I had many, I should cure them; and if I had nothing else to do, I should delight in it, but I tell you it is lots of work.

Mr. Gillett : I have had bees affected with foul brood. The larvae dies, shrinks, turns gray, then brown, and dries up into a mummy at the back of the cell. I cured them by the starvation plan. Have had bees 120 hours with no food except what they carried with them, and they were yet alive.

Dr. Mason : And I have kept them ten days, and they were yet alive.

B. Salisburg : We have foul brood near Battle Creek.

Mr. Gillett, Hemlock City : I do not know where my bees first obtained foul brood. I kept some empty combs in a damp place, and, upon using them, foul brood developed. I think some of them may have contained unsealed brood when they were packed away, which decomposed and developed into foul brood. My neighbors have kept bees, but I never knew them to have foul brood.

T. F. Bingham : It may have been lingering among bees belonging to some of your neighbors.

H. D. Cutting : Foul brood is more widely disseminated throughout the State than many are aware. I receive letters very frequently asking advice in regard to the matter.

D. A. Jones : Wax rendered by the solar wax extractor may possibly contain foul brood germs, but the heat necessary in making foundation is great enough to destroy the germs of foul brood. I am fully convinced that foul brood can be started in any yard. Take some dead drone brood (which can be obtained by cutting off their heads), and keep it under a nucleus, where the stench from it can arise among the bees, and let the brood be fed upon the dead drones, and see if you do not have foul brood developed.

Prof. Cook : I know that boiling will kill the germs of foul brood. Foul brood is now found in the northern part of the State, and, although it seems as though it must have "jumped" over several counties to get there, yet I cannot think that it originated from chilled or decomposed brood. It might be carried by robbers

to some tree in the woods, then this colony might be robbed, and so on, until it has traveled a long distance.

T. F. Bingham : I agree with Prof. Cook. It is spread in the same apiary, by young bees from a diseased colony getting in the wrong hive. We should exercise great care. Some parties are taking bees South to winter them, and then will bring them back in the spring to sell. Their bees may become infected with foul brood. We should be very careful in buying bees, or queen, from an infected district.

Dr. Mason : Some may have foul brood in a slight degree and not know it, and send out bees and thus spread it.

T. F. Bingham : When a queen is received, there are, perhaps, a dozen bees with her. These bees should be destroyed, and the queen kept 6 hours in a clean cage before giving her to the new colony. Foul brood is communicated by the honey, and the bees may have infected honey in their sacs. The queen does not feed the brood; hence she would not infect the bees. I have taken a queen from a foul brood colony and given it to a healthy one, and foul brood was not communicated.

D. A. Jones : Foul brood may be spread by absconding swarms. A man having a foul broody colony should clip the queen's wings.

T. F. Bingham : I do not wish to be understood as saying that foul brood is always communicated by honey.

A comb was brought into the hall in which it was asserted there was foul brood, and that it came from the hive of a bee-keeper near by. Upon examination Mr. C. F. Muth pronounced it malignant foul brood.

Prof. Cook : Although we have a law by which we can compel the destruction of foul brood, yet I would advise milder means at first; but if we cannot induce people by reasoning with them, to destroy foul brood, then I should advise the enforcement of the law.

C. F. Muth : There is a difference in foul brood. One type is malignant, while the other is mild and more easily cured. Before the brood is sealed the two types are much alike in appearance. In cutting through the comb containing the mild foul brood, a blackish water runs out. I can cure foul brood with salicylic acid by using the atomizer, but it is the most trouble and the most risky. The best way is to put the bees in a new hive containing frames filled with foundation, and feed them honey in which there are 16 grains of salicylic acid and 16 grains of soda-borax to each quart of honey.

D. A. Jones : I agree with Mr. Muth, but I can cure them upon the starvation plan.

Mr. Jones here drew diagrams upon the black-board, showing how a larva, dead from foul brood, would shrink back into the cell until it remained a flattened, dried-up mummy at the bottom of the cell, in which condition the germs would retain their vitality for years and years.

A. Keopper : What shall we do when we find foul brood in our neighborhood?

R. L. Taylor : As a lawyer I would second the advice given by Prof. Cook. Keep out of law if you can, but be firm in the matter.

D. A. Jones : It might be better to buy a foul-broody colony of a neighbor, and either destroy or cure it to go to law, or allow the colony to remain undisturbed.

Rev. L. L. Langstroth : If any one has foul brood, it is better that his bee-keeping neighbors unite and help him bear his loss. What is now styled "innocent" foul brood, was known in 1790, and it swept away whole apiaries. To cure them then, it was recommended that they be made to fast two days.

The one having the foul brood near Flint, promised to destroy it.

C. F. Muth : When even a small amount of foul brood is found in the spring, it soon increases, so that the colony is not a profitable one. If brood is smothered, or dies from any cause, and decomposes, it has an odor similar to foul brood.

W. Z. Hutchinson read the following from H. L. Jeffrey, on "Dry or Desiccated Foul Brood."

This disease being the opposite to the malignant foul brood, which emits a terrible stench and leaves its putrescent trace. The dry-rot which emits no stench, nor leaves any very apparent trace in the comb, is a disease needing not only the closest scrutiny to detect, but a thorough and immediate investigation of our best-informed apiarists. There being no more trace left in the comb than a mere spot of dirt in each infected cell, it would, for a considerable time, pass without notice from the apiarist, other than the decrease in the perfect and larval population of the hive. This appearance, of course, causes him to exchange combs with some other hive, thereby ignorantly carrying the infection from hive to hive, and, perhaps, shipping it to other parts where yet it may be unknown.

I see by notes in my diary, that I first discovered the effects of this plague in the summer of 1878; from where or how it came, I know not. Before I learned what to look for, 13 good colonies were nearly destroyed by its ravages. In 1879, I learned how to detect its presence, and I experimented on its contaminating effects and cure, though of the origin I could obtain no reliable trace.

In 1880, I received an imported Italian queen from the apiary of Petro Pilati, in Italy. She was placed in a hive on seven combs, that had been standing in the hive unused during the season of 1879, and were new, naturally-built combs of 1878, but had not been in the affected apiary, and not within three miles of it. The combs were slightly moldy from the effects of the weather, as the hive containing the combs had been on its stand since first used. I see by record reference that the colony for the queen was made by brushing the bees from combs taken from eight or nine hives, into a box about 11 a. m., about the end of May. I did not try to rear any queens from her until after June 25, wishing first to see some of her

workers, of which but few seemed to be in the hive in proportion to the amount of brood I had always found in the larval state, as she was noted in the register, on June 15, to be good for nine American frames; but by the time the hybrid and black bees, which I gave her were all dead, the hive was thinly populated. They were again helped by mature bees being run in. By the first week in July, I had 20 queen-cells capped, and, being absent for a few days afterwards, I expected to find all destroyed by the first hatching queen, but to my surprise not a cell had hatched. I cut them all open, and only found dried-up dead queens, some so dry as to be crumbling.

This occurrence caused me to make further examination, and I found the colony was infected with desiccating brood. I then tried inserting a piece of new comb, of which the queen took immediate possession, and the new comb of eggs was cut out and given to another colony to hatch. From this I obtained some very fine queens, showing that the queen was not at fault, as I had previously given her credit for being good, but other pieces of the infected comb, similarly disposed of, only gave dead queens.

Upon close inspection of the colony containing the imported queen, and watching a frame of brood in an observation hive, containing but one comb, I saw the changes (as I had in 1879); the eggs were laid by the queen in the cells, regularly, and as even as in any other comb; in due time, they hatch to the worm, the larvae grows and keeps plump and fresh-looking, until it is ready to be sealed over (except in queen-cells); then it begins to shrink and look yellowish; in 48 hours it will be of a light yellow or brown color; and in 48 hours more, it will have disappeared to the casual observer.

The second lot of brood comes on, and this time there is quite a sediment in the lower side of the cell towards the bottom, though its position would not be thought of, if noticed at all. Thus it goes on spreading; and finally, some cells will be found to contain a dead or dried-up bee. Its destructive power, though slow at first, is positively sure in result, and is very contaminating, but only in the brood comb, as I have not yet known of a case caused by letting the bees have access to the honey stored in the most affected combs.

A hive containing a colony affected with it, if given a new set of combs and perfectly healthy bees, will show a slight sign, the first season, but will be extinct before the close of the second season. These hives can be used with safety by washing them with a solution of common salt and strong cider vinegar.

In the fall of 1879, I was called to look over an apiary which had 20 colonies in box hives; 7 were dead, and only 5 of them survived the winter, and these were transferred to Langstroth frame hives; 3 cast swarms. They were put into new hives on foundation, and the hives set on the stands of colonies that had died. These showed the dry-rot to a consid-

erable extent, and died out in the spring of 1882. The 7 hives, in which the bees had died, showed signs of the dry-rot, as did all the others in the spring of 1880. This apiary was 13 miles from me, and a strong healthy Italian colony put on the same stand since, has died out with it.

Draw your own conclusions. I have given you the facts of a few cases out of many, and with this I send a small sample of comb which is a fair one.

P. S. Since writing the above, I have found another case of dry-rot, that shows very strong evidence of germinating from the use of old, moldy, half-rotten combs. At least there is no other traceable reason for it. Also a queer case of lice, the hive was very thickly infested with the little red hen lice. The cap of the hive had been used to set a hen in, and was put on the hive in place of one that leaked. Several hives near that showed a few intruders.

Members, who paid their annual dues, are as follows: [If there are any errors in the addresses, notify the Secretary, H. D. Cutting, Clinton, Mich.]

A. J. Cook, Lansing, Mich.  
W.Z. Hutchinson, Rogersville, Mich.  
R. L. Taylor, Lapeer, Mich.  
B. Salisbury, Battle Creek, Mich.  
H. D. Cutting, Clinton, Mich.  
Thos. M. Cobb, Grand Rapids, Mich.  
S. D. Mosher, Holly, Mich.  
A.D.D. Wood, River Junction, Mich.  
E. S. Burnett, Bancroft, Mich.  
I. F. Billings, Flint, Mich.  
Thos. Elicott, Fentonville, Mich.  
Thos. B. Crawford, Romeo, Mich.  
P. R. Wilson, Wayne, Mich.  
John Rathbon, Willington, Mich.  
J. J. McWhorter.  
J. R. Brace.  
A. Smith.  
C. K. Bennett, Whitemore Lake, Mich.  
Thos. C. Pollock, Grand Blanc, Mich.  
Jas. A. Miller, Dryden, Mich.  
Merit White, Okemah, Mich.  
Geo. W. Sorter, East Dayton P. O., Mich.  
Geo. E. Hilton, Fremont Centre, Mich.  
Chas. E. Buckbee, Linden, Mich.  
James Ure, East Saginaw, Mich.  
A. D. Benham, Olivet, Mich.  
Wm. Morhouse, Dearborn, Mich.  
O. H. M. Husted, Holly, Mich.  
Dr. C. E. Rulison, Flushing, Mich.  
H. R. Wood, River, Mich.  
Jas. A. Inglis, Olivet, Mich.  
S. B. Stone, Holly, Mich.  
F. Wright, Otter Lake, Mich.  
L. S. Woodman, Grand Rapids, Mich.  
E. S. Miller, Dryden, Mich.  
L. C. Whiting, East Saginaw, Mich.  
Hiram Johnson, Jr.  
Wm. Halcomb, Clarkston, Mich.  
F. Baker, Holly, Mich.  
T. F. Bingham, Abronia, Mich.  
James Cowe, Goodland, Mich.  
O. J. Bedell.  
August Koepken, Flint, Mich.  
H. B. Clark, Wayland, Mich.  
D. Millard, Mendon, Mich.  
Dr. C. F. Ashley, Ypsilanti, Mich.  
Dr. A. B. Mason, Wagon Works, O.  
Dr. I. Y. Karzartee, Cresco, Mich.

J. Van Deusen, Sprout Brook, N.Y.  
G. E. Lincoln.  
M. H. Hunt, Bell Branch, Mich.  
S. T. Pettit, Ontario.  
Jas. Fornerook, Watertown, Wis.  
E. J. Cook, Owosso, Mich.  
G. H. R. Case, Grand Blanc, Mich.  
C. D. Collins, Bell Branch, Mich.  
A. S. Wakley, Millford, Mich.  
Philip W. Burges, Hastings, Mich.  
Elias Matt, Ontario.  
Wm. Shedd, Clifford, Mich.  
Martin Emigh, Holdbrook, Ont.  
O. P. Crittenden, Reading, Mich.  
M. O. Burk, Crystal, Mich.  
M. F. West, Flint, Mich.  
D. A. Jones, Beeton, Ont.  
Daniel Dysinger, Memphis, Mich.  
Wm. E. Harris, South Bay City, Mich.  
O. Cole, East Saginaw, Mich.  
J. L. Wilcox, Flint, Mich.  
Joseph Rider, Howell, Mich.  
H. J. Van Aiken, Vernon, Mich.  
Elias Shank, Maple Grove, Mich.  
C. Andress, Pontiac, Mich.  
John M. Rey, East Saginaw, Mich.  
A. C. McPherson, Saginaw City, Mich.  
C. H. Chapman, Cohoctah, Mich.  
Byron Walker, Capac, Mich.  
Chas. W. Goodrich, Flint, Mich.  
Adjourned till 9 a. m., Dec. 6, 1883.  
(Concluded next week.)

#### Local Convention Directory.

1884. Time and place of Meeting.  
Jan. 6.—Nebraska State, at Lincoln, Neb. M. L. Trester, Sec.  
Jan. 8.—Des Moines Co., at Middleton, Iowa.  
Jan. 8.—Cortland Union, at Cortland, N. Y. M. C. Bean, Sec., McGrawville, N. Y.  
Jan. 8-10.—Eastern New York, at Albany, N. Y. S. Vrooman, Pres.  
Jan. 9.—Central Illinois, at Bloomington, Ill. Jas. Poindexter, Sec.  
Jan. 10.—Champlain Valley, at Middleburg, Vt. J. E. Crane, Pres.  
Jan. 14, 15, 16.—Ohio State, at Columbus, O. C. M. Kingsbury, Sec.  
Jan. 15, 16.—Indiana State, at Indianapolis, Ind. F. L. Dougherty, Sec.  
Jan. 15, 16.—N. W. Ills., & S. W. Wis., at Freeport. J. Stewart, Sec., Rock City, Ill.  
Jan. 16, 17.—N. E. Ohio, and N. W. Pa., at Jefferson, O. C. H. Coon, Sec., New Lyme, Ohio.  
Jan. 22-24.—Northeastern, at Syracuse, N. Y. Geo. W. House, Sec., Fayetteville, N. Y.  
April 18.—Iowa Central, at Winterset, Iowa. J. E. Pryor, Sec.  
Oct. 11, 12.—Northern Mich., at Alma, Mich. F. A. Palmer, Sec., McBride, Mich.

In order to have this table complete, Secretaries are requested to forward full particulars of time and place of future meetings.—ED.

#### SELECTIONS FROM OUR LETTER BOX

#### Bees Flying.

This is a fine winter for bees; so far, there has been no zero freeze, and bees are flying to-day, under a bright sun. This time last year, the ground was buried under 4 feet of snow.

C. W. YOUNG.  
Stratford, Ont., Dec. 13, 1883.

#### My Report.

I wintered 5 colonies last winter; increased to 17, this season; obtained 200 lbs. of comb honey, and the bees have plenty in the brood chamber to winter on. I always winter on the summer stands with no packing, except quilts on the top of the brood chamber. I keep corn fodder set up all around them, which will make about 10° difference, and I have never lost a colony yet, by freezing.

H. M. CATES.  
Shidler, Ind., Dec. 11, 1883.

#### Average of over 100 lbs. per colony.

The spring of 1883 found us with 211 colonies of bees, in a fairly average condition. We had them in 5 apiaries: 1 at home, and the other 4, from 4 to 9 miles away; all were worked by the same set of hands, and for extracted honey. The total amount of honey we got was 22,059 pounds. The average per colony, spring count, was 104½ lbs.; we have now a little over 300 colonies, all out-of-doors, on their summer stands.

EDWIN FRANCE & SON.  
Platteville, Wis., Dec. 14, 1883.

#### Double-Walled Hives.

I do not believe in double-walled hives for summer use. They are too much like a person putting on an over-coat in July, to keep out the heat. The dead-air space between the outer and inner box will be of a higher temperature than the surrounding air, hence various openings will need to be made to let the cooler outside air rush in, cooling this space and the inside hive. Pull down the outside box, and the cooling of the inside one will be more fully accomplished. If the outer box is thickly perforated, it answers for shade for the bees, but if the whole hive be already shaded, the perforated outer box becomes at once redundant. Better and cheaper shade can be had. For summer use, a single-walled hive is preferable, but for wintering on the summer stands, it is very important to have a dead-air spaces, for packing. I accomplished this by placing the hives in cheap boxes, made of rough inch lumber.

F. M. CHENEY.  
South Sutton, N. H., Dec. 7, 1883.

#### Bees have done Well.

I have been sick nearly all summer, and confined to the house, most of the time, since Sept. 1, but my health is improving now. My bees have done well this season, but, on account of my sickness, I have sold all but 10 colonies.

G. W. ZIMMERMAN.  
Napoleon, O., Dec. 13, 1883.

#### Packed in Sawdust.

I have 50 colonies of bees packed in sawdust, on the summer stands, with a 7-inch square hole cut through the bottom board covered with wire cloth. They wintered well that way last year, and I hope they will this.

F. BAKER.  
Holly, Mich., Dec. 14, 1883.

**Pasturage for my Bees.**

The season has not been favorable for bees with me. The spring was too cold and wet, and so 'was the summer. I wintered my bees well; lost none, and commenced the season with 31 colonies—part Italians and part Cyprians. I increased to 65 colonies; all in good condition for wintering now; but got only 400 pounds of surplus; nearly all extracted. I consider the Cyprians the best, but must remark that they are all crossed with Italians. I have sold and delivered 10 colonies at from \$12 to \$14 per colony, and expect to sell more at that figure. The coming season I expect to do better with my bees, since I will have about 12 acres of melilot or sweet clover, besides what has been scattered along the public roads. I also will have, hereafter, 1½ acres of matrimony vines to depend on, and one acre of borage. Catnip, which I have tried also, proved to be one of the best honey plants, and I propose to sow largely of it.

WM. STOLLEY.

Grand Island, Neb., Dec. 8, 1883.

**What and How.**

ANSWERS BY

James Heddon, Dowagiac, Mich.

**Appropriate Queries.**

A brother bee-keeper has sent me the following for "What and How." I know that the errors in it are unintentional, so I withhold the name that I may again illustrate of what errors consist, in asking questions for this department :

Will Mr. Heddon please answer the following questions in the "What and How."

1. Why do you prefer natural swarms?
2. How do you manage to control the swarming impulse, or govern swarms when 3 or 4 come rushing out, pell-mell, at the same time?
3. How far apart, from centre to centre, are the brood frames in your hives?
4. Can you furnish sections to nail 5x5x1½ inches?

ANSWERS.—1. To answer this question as it should be answered, requires two columns. It is consequently not adapted to this department.

2. The same objection is applicable to this question.

3. Eight frames occupy a net space of 11½ inches, said space being equally divided among them.

4. This question is entirely out of place here; it relates to private business, without possessing general interest.

One more error was in sending the questions to me instead of the Editor of the BEE JOURNAL. I mention this

that we may the sooner get a knowledge of the right way in which to conduct this department, one which we hope to make more and more useful as time goes on.

**Cases, Winter Bees, etc.**

1. How is your summer shade-board made? Do you use rough lumber for it?

2. Which do you prefer, pine or basswood for cases?

3. Are you troubled much by the wind, etc., with your cases getting out of place when in use?

4. Are you not troubled with the rain beating in between the cases and the hive, it being only a square joint?

5. Why do you think the idea of a stain of bees for wintering is not a good plan? E. J. SCHOFIELD.

Nashua, Iowa.

ANSWERS.—1. We have different kinds of shade-boards. One kind is rough pine, 2 feet wide by 3 feet long, and made of whole pieces and no cleats. The other is the same size, but planed and painted, and cleated the same as my hive cover. I prefer the more costly board as being the best, at the cost, in the end.

2. Either one will do, and each are better than the other for some reasons, which about balance each other. Whitewood or poplar is better than either. All are good enough if properly handled.

3. Not in the least.

4. I have never seen a drop of water work in between the cases.

5. To be as brief as possible, I will say that the same law by which we can breed bees for length of proboscis, energy as honey gatherers, good disposition, etc., we could breed them to withstand cold, but if the cause of dysentery (which causes our winter losses) is consumption of bee-bread during confinement, it would be as difficult to breed bees that would let the pollen alone, or remain healthy when consuming it, as to breed a race of men that would let alone whisky, or digest shingle nails. We can breed for valuable honey-producing qualities with considerable certainty, by rearing queens from the best producing colonies, but this would hardly work if applied to such colonies as survived the winter, for such variation among colonies exists not by virtue of inner physiological conditions, but by conditions outside of the bee itself. We hardly think we could breed a race of people impervious to small-pox; and if we could, it could not be done by selecting those who did not take the disease, because they were not exposed. My own opinion

is, that all work, in past or future, to breed up a strain of bees for safe wintering, is time wasted. That less than one-hundredth part of the energy devoted to finding out and removing the cause of dysentery, would "get there" first.

**Wintering Queenless Colonies, etc.**

Please answer the following questions through the "What and How" department of the BEE JOURNAL:

1. Will it pay to winter a queenless colony of bees?

2. How many pounds of honey, at this date, should a colony of bees covering 4 and 5 Langstroth frames have, to secure safe wintering?

3. Would a colony of bees winter if they had no other stores than sugar made into candy and filled in frames, putting frames in a hive, of course.

A NOVICE.

ANSWERS.—1. No, never, unless in some isolated locality where bees are very scarce and high in price.

2. My opinion is, that an average colony of bees on "four or five Langstroth frames," will reach such time in spring when they can fly, and can easily be fed liquid food, with 15 lbs. of sugar syrup, or good honey, provided the syrup or honey is located in proper position in the frames. If in the cellar, 8 to 10 lbs. will reach the same point (I have known one or two pounds to do it, provided,) in either case, bee bread is not too plentiful in the hive, or any other causes to induce winter breeding. Where colonies consume 20 to 30 lbs. of honey, they are more apt to have dysentery; or, perhaps, more properly, where they have dysentery, they usually consume large amounts of food. Which is cause, and which effect, as yet we can only guess at. These figures do not cover food required for breeding in spring,

3. From my limited experience with sugar candy, I would not dare to depend upon it.

• The Bee-Keepers' Association of Central Illinois, will meet in Bloomington, on Jan. 9, 1884. All are cordially invited to attend.

JAS. POINDEXTER, Sec.

• The annual meeting of the Cortland Union Bee-Keepers' Association will be held in Cortland, N. Y., on Tuesday, Jan. 8, 1884.

M. C. BEAN, Sec.

• A meeting of the bee-keepers of Des Moines Co., Iowa, will be held on the second Tuesday in January, at 10 a. m., for the purpose of organizing a county bee-keepers' association, at Midleton, Iowa, in R. C. Crawford's Hall. JOHN NAU, FRANK MELCHER, A. M. BALDWIN, W. R. GLANDON, Committee.

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To increase the number of readers of the BEE JOURNAL, we believe, will aid progressive bee-culture and help to elevate the pursuit. We, therefore, offer the following premiums for getting up clubs:

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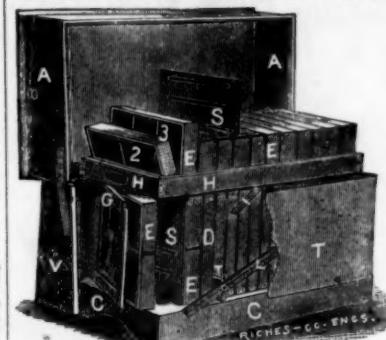
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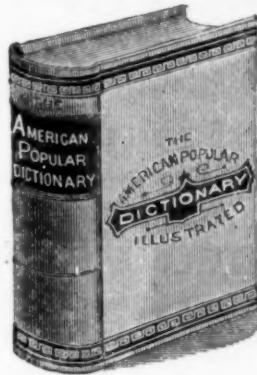
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